

INTRODUCTION TO DRUGGED DRIVING

INSTRUCTOR'S LESSON PLANS

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U.S. DEPARTMENT OF TRANSPORTATION
Transportation Safety Institute
National Highway Traffic Safety Administration

INTRODUCTION TO DRUGGED DRIVING

Instructor's Lesson Plans

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Upon successfully completing this module of instruction, the participant will be able to:



- o Define the term "drug" in the context of DWI enforcement.
- o Describe in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and in DWI enforcement.
- o Name the major categories of drugs.
- o Describe the observable signs generally associated with the major drug categories.
- o Describe medical conditions and other situations than can produce similar signs.
- o Describe appropriate procedures for dealing with drug-impaired or medically-impaired suspects.

Content Segments



- A. Overview
- B. Eye Examinations: Detecting Signs of Drug Influence
- C. Drug Categories and Their Observable Effects
- D. Combinations of Drugs
- E. Demonstrations of Drug Influence (Video/DVD)
- F. Dealing with Suspected Drug Influence or Medical Impairment



Learning Activities





- o Instructor-Led Presentations
- o Participant Practice
- o Video Presentations



Aids	Lesson Plan	Instructor Notes
<div data-bbox="232 390 302 457"></div> <div data-bbox="191 478 357 510">45 Minutes</div> <div data-bbox="196 558 362 642"></div> <div data-bbox="191 688 329 720">Display 1</div>	<p data-bbox="428 304 888 369">INTRODUCTION TO DRUGGED DRIVING</p> <p data-bbox="428 409 643 441">A. Overview</p> <ol style="list-style-type: none"> <li data-bbox="466 552 938 583">1. Session purpose and objectives. <ol style="list-style-type: none"> <li data-bbox="516 623 951 898">a. The <u>purpose</u> of this session is to improve your ability to recognize suspects who may be medically impaired or impaired by drugs other than alcohol and to take appropriate action when you encounter such a suspect. <li data-bbox="516 938 935 1108">b. Alcohol certainly remains the most frequently abused drug, and most impaired drivers are under the influence of alcohol. <li data-bbox="516 1148 927 1245">c. But many other drugs also are routinely abused by many drivers. <li data-bbox="516 1285 943 1528">d. It is highly likely that every experienced DWI enforcement officer has encountered at least some suspects who were under the influence of drugs other than alcohol. <li data-bbox="516 1568 946 1812">e. Depending upon the specific types of drugs they have taken, some drug-impaired suspects may look and act quite a bit like persons who are under the influence of alcohol. 	<p data-bbox="1000 934 1360 1031"><u>Ask participants:</u> “What is responsible for most DWI violations in America?”</p>







Aids	Lesson Plan	Instructor Notes
<div data-bbox="199 800 365 884" data-label="Image"> </div> <div data-bbox="191 932 350 968" data-label="Caption"> <p>Display 2A</p> </div> <div data-bbox="191 1440 355 1524" data-label="Image"> </div> <div data-bbox="191 1562 350 1598" data-label="Caption"> <p>Display 2B</p> </div> <div data-bbox="191 1877 378 1906" data-label="Page-Footer"> <p>HS 178A R2/06</p> </div>	<div data-bbox="513 302 946 1738" data-label="List-Group"> <ul style="list-style-type: none"> f. But others will look and act very differently from alcohol-impaired suspects. g. It is important that you be able to recognize suspects who may be under the influence of other drugs, so that you will know when to summon assistance from physicians or other appropriate persons, or trained drug recognition experts. h. Upon successfully completing this session, you will be better able to: <ul style="list-style-type: none"> o Define the term "drug" in the context of DWI enforcement. o Describe in approximate, quantitative terms the incidence of drug involvement in motor vehicle crashes and DWI enforcement. o Name the major categories of drugs. o Describe the observable signs generally associated with the major drug categories. o Describe medical conditions and other situations that can produce similar signs. </div>	

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 <p data-bbox="191 688 331 722">Display 3</p>	<ul style="list-style-type: none"> <li data-bbox="565 306 919 478">o Describe appropriate procedures for dealing with drug-impaired or medically impaired suspects. <li data-bbox="513 516 919 722">i. One important thing that this session will <u>not</u> accomplish: it will <u>not</u> qualify you to perform the functions of a Drug Recognition Expert (DRE). <li data-bbox="513 760 941 1037">j. Officers become DREs only after they have completed a very challenging program that includes nine days of classroom training and many weeks of closely-supervised on-the-job training. 	<p data-bbox="1000 306 1403 373">Solicit participants' questions concerning these objectives.</p>
 <p data-bbox="191 1283 331 1316">Display 4</p>	<ul style="list-style-type: none"> <li data-bbox="464 1073 786 1106">2. Definition of "drug". <ul style="list-style-type: none"> <li data-bbox="513 1144 919 1245">a. The word "drug" is used in many different ways, by many different people. <li data-bbox="513 1283 941 1526">b. The corner <u>druggist</u> and the U.S. <u>Drug Enforcement Administration</u> are both concerned with "drugs", but they don't have exactly the same thing in mind when they use that word. <li data-bbox="513 1564 941 1703">c. And neither the druggist nor the DEA have the same perspective as the <u>DWI enforcement officer</u>. 	<p data-bbox="1000 760 1430 827">Two-day Pre-School followed by Seven-day classroom training.</p>

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 Display 5	<p>d. For our purposes, a "drug" is:</p> <p>Any substance which, when taken into the human body, can impair the ability of the person to operate a vehicle safely.</p> <p>e. This definition <u>excludes</u> some substances that physicians consider to be drugs.</p> <p><u>examples</u>: nicotine; caffeine.</p> <p>f. This definition <u>includes</u> some substances that physicians don't usually think of as drugs.</p> <p><u>examples</u>: model airplane glue; paint.</p> <p>3. Within this simple, enforcement-oriented definition, there are <u>seven categories of drugs</u>.</p>	<p>Working definition is derived from California Vehicle Code, Section 312; 1985.</p> <p><u>Ask</u> participants: what are some things that physicians would consider to be "drugs" that would <u>not</u> be covered under this definition?</p>
 Display 6	<p>a. <u>Central Nervous System Depressants</u> include the most familiar drug, alcohol, but also include numerous other substances that <u>slow down</u> the operation of the central nervous system. Rohypnol, Valium, Xanax, and GHB are some CNS Depressants.</p>	<p><u>Ask</u> participants: what are some common chemical substances that doctors don't usually consider drugs, but that definitely impair driving ability?</p>

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 Display 7	<p>b. <u>Central Nervous System Stimulants</u> include cocaine, numerous drugs of the amphetamine family including methamphetamine, and many other substances that cause impairment by speeding up, or over-stimulating, the central nervous system.</p>	
 Display 8	<p>c. <u>Hallucinogens</u> include some natural, organic substances found in certain cactus and mushrooms, and many artificial substances including LSD and MDMA (Ecstasy). They all impair the user's ability to perceive the world as it really is.</p>	
 Display 9	<p>d. The category Dissociative Anesthetic includes the drug PCP and its various analogs. Dissociative Anesthetics are in a category by themselves because they produce some effects that are similar to depressants, some similar to stimulants, and some similar to hallucinogens.</p>	
 Display 10	<p>e. <u>Narcotic Analgesics</u> include heroin, morphine and other derivatives of opium, and many synthetic drugs that affect people in similar ways.</p>	<p><u>Point out</u> that "Analgesic" means "pain killer".</p>
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Aids	Lesson Plan	Instructor Notes
	<p>f. <u>Inhalants</u> include many familiar household materials, such as glue (Toluene), paint, gasoline, aerosol sprays, etc. that produce volatile fumes.</p>	
Display 11		
	<p>g. The category <u>Cannabis</u> includes the various products of the Cannabis Sativa plant, e.g., marijuana, hashish, hash oil.</p>	
Display 12		
	<p>4. These seven categories are organized on the basis of the clinical effects that they produce.</p>	<p><u>Point out</u> that some medical texts may use different numbers of drug categories, with different names for the various categories.</p>
	<p>a. The drugs that belong to a particular category all produce basically the same effects.</p>	<p><u>Example:</u> Alcohol and Valium both are CNS depressants. A person under the influence of Valium will look, act and feel basically the same as a person under the influence of alcohol.</p>
	<p>b. Two different categories produce different effects.</p>	<p><u>Example:</u> A person under the influence of a CNS Stimulant will not look, act or feel exactly like someone under the influence of a Dissociative Anesthetic.</p>
	<p>5. Because many drugs are illegally manufactured, sold and consumed, it is difficult to determine how many people actually use the various drugs.</p>	<p>Solicit participants' questions concerning drug categories.</p>

Aids	Lesson Plan	Instructor Notes
 Display 13    	<p>a. All available information shows that drug use and abuse are widespread among large segments of the American public.</p> <p>(1) In 2004, 19.1 million Americans (7.9% of the population) aged 12 years or older were current illicit drug users.</p> <p>(2) Marijuana was the most commonly used illicit drug in 2004, with 14.6 million.</p> <p>(3) In 2004, 6.0 million people were users of psychotherapeutic drugs taken non-medically.</p> <p>(4) In 2004, an estimated 2 million persons were current Cocaine users.</p> <p>b. It is especially disturbing that juveniles frequently abuse drugs.</p> <p>c. Evidence of drug use frequently shows up in people killed or injured in motor vehicle crashes.</p>	<p>Source: Results from the 2004 National Survey on Drug Use and Health: National Findings</p> <p>Source: Results from the 2004 National Survey on Drug Use and Health: National Findings</p> <p>Source: Results from the 2004 National Survey on Drug Use and Health: National Findings</p> <p>Source: Results from the 2004 National Survey on Drug Use and Health: National Findings</p>
 Display 14	<p>(1) <u>Fact:</u> University of Tennessee (1988) found 40% of crash injured drivers had drugs other than alcohol in them.</p>	

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<div data-bbox="186 552 354 636" data-label="Image"> </div> <p data-bbox="191 688 349 720">Display 15</p> <div data-bbox="214 808 289 877" data-label="Image"> </div> <p data-bbox="191 898 354 930">35 Minutes</p>	<p data-bbox="565 304 946 510">(2) <u>Fact</u>: The Maryland Shock Trauma Center (1986) found nearly one-third of crash injured drivers had recently used Marijuana.</p> <p data-bbox="516 552 946 793">e. Studies of fatally-injured drivers consistently show that nearly 20 percent had drugs or the combination of drugs and alcohol in their systems at the time of the crash.</p> <p data-bbox="427 829 922 898">B. Eye Examinations: Detecting Signs of Drug Influence</p> <ol style="list-style-type: none"> <li data-bbox="467 972 914 1071">1. The eyes disclose some of the clearest signs of drug impairment or medical conditions. <ol style="list-style-type: none"> <li data-bbox="516 1108 946 1249">a. Horizontal gaze nystagmus is a very clear indication, in a suspect's eyes, of possible alcohol impairment. <li data-bbox="516 1287 914 1423">b. There are a number of drugs, other than alcohol, that will cause horizontal gaze nystagmus. <li data-bbox="516 1461 946 1560">c. There are a number of other drugs that will <u>not</u> cause horizontal gaze nystagmus. <li data-bbox="516 1598 946 1770">d. There are many other clues that the eyes will disclose, all of which will suggest the presence or absence of drugs or medical impairment. 	<p data-bbox="1003 552 1174 583">FARS, 1995.</p> <p data-bbox="1003 657 1401 793">Solicit participants' questions or comments concerning drug use and drug involvement in impaired driving.</p> <p data-bbox="1003 972 1401 1108"><u>Ask</u> participants: what is one of the most reliable signs of <u>alcohol</u> influence that can be observed in the eyes?</p>



Display 16

2. Overview of eye examinations.



- a. The eye examinations that you can conduct to assess possible drug or medical impairment include:
 - o Resting nystagmus
 - o Tracking ability
 - o Pupil size
 - o Horizontal gaze nystagmus
 - o Vertical nystagmus
- b. Resting Nystagmus is referred to as jerking as the eyes look straight ahead. This condition is not frequently seen. Its presence usually indicates a pathology or high doses of a Dissociative Anesthetic drug such as PCP.
- c. Tracking Ability will be affected by certain categories of drugs, and also by certain medical conditions or injuries involving the brain:
 - o If the two eyes do not track together, the possibility of a serious medical condition or injury is present.
 - o By passing a stimulus across both eyes, you can check to see if both eyes are tracking equally.

NOTE: Resting Nystagmus may also be a medical problem.

Although this observation is an important medical assessment, it is NOT an HGN administrative procedure step.

Select a student to serve as a demonstration subject.



Position a stimulus in front of that student's eyes, and check for lack of smooth pursuit across both of the student's eyes.

Aids	Lesson Plan	Instructor Notes
 <p>Display 17</p>	<ul style="list-style-type: none"> o If they <u>don't</u> (i.e., if one eye tracks the stimulus, but the other fails to move, or lags behind the stimulus) there is the possibility of a neurological disorder. o If a person has sight in both eyes, but the eyes fail to track together, there is a possibility that the person is suffering from an injury or illness affecting the brain. o If the eyes track equally, but "jerk" while they are moving, then the possible presence of three categories of drugs should be <u>noted</u>: <ul style="list-style-type: none"> - Central Nervous System Depressants - Dissociative Anesthetics - Inhalants d. <u>Pupil Size</u> will be affected by several categories of drugs, and also by some medical conditions or injuries: <ul style="list-style-type: none"> o If the two pupils are <u>distinctly different</u> in size, it is possible that the subject has a glass eye, or is suffering from a head injury or a neurological disorder. 	<p><u>Point out</u> that this can occur because the suspect is blind (or nearly blind) in one eye. This can be checked by having the suspect cover one eye, and instructing the suspect to reach out and touch the tip of the stimulus.</p> <p><u>Point out</u> that "unequal tracking" is a condition that should prompt the officer to request a medical examination of the suspect.</p> <p><u>Point out</u> that this "jerking" is horizontal gaze nystagmus.</p>
 <p>Display 18</p>		<p><u>Point out</u> that it is sufficient to look at a suspect's pupils and estimate whether they look noticeably small, about normal, or noticeably large.</p>

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Aids	Lesson Plan	Instructor Notes
<div data-bbox="191 905 354 989" data-label="Image"> </div> <div data-bbox="191 1037 367 1073" data-label="Caption"> <p>Display 19A</p> </div> <div data-bbox="191 1150 354 1234" data-label="Image"> </div> <div data-bbox="191 1283 367 1318" data-label="Caption"> <p>Display 19B</p> </div>	<ul style="list-style-type: none"> o If the pupils are noticeably dilated, then the possibility exists that the subject could be impaired by certain categories of drugs: <ul style="list-style-type: none"> - CNS stimulants - Hallucinogens - Cannabis o If the pupils are noticeably <u>constricted</u>, then the possibility exists that the subject could be impaired by a <u>narcotic analgesic</u>. o CNS Depressants, Dissociative Anesthetics, and Inhalants usually <u>do not</u> affect pupil size. <p>3. The test of <u>Horizontal Gaze Nystagmus</u> for subjects suspected of drug impairment is identical to the HGN test for alcohol-impaired subjects.</p> <ul style="list-style-type: none"> a. First clue - lack of smooth pursuit. b. Second clue - distinct and 	<p><u>Examples:</u> cocaine, methamphetamine, amphetamine sulfate, etc.</p> <p><u>Examples:</u> LSD, peyote, psilocybin, MDA, Ecstasy, etc.</p> <p><u>Examples:</u> Marijuana, Hashish, Hash Oil.</p> <p><u>Examples:</u> Heroin, codeine, demerol, etc.</p> <p><u>Point out</u> that the types of drugs that usually cause <u>nystagmus</u> usually don't affect pupil size.</p> <p><u>Major exception:</u> Methaqualone (a CNS Depressant) will cause pupils to dilate.</p> <p><u>Ask</u> participants: "What are the three clues of HGN?"</p>



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 <p data-bbox="191 688 365 724">Display 19C</p>	<p data-bbox="565 304 889 373">sustained nystagmus at maximum deviation.</p> <p data-bbox="516 409 863 514">c. Third clue - onset of nystagmus prior to 45 degrees.</p> <p data-bbox="462 583 938 756">4. The angle of onset becomes of special interest when a subject is under the influence of a Dissociative Anesthetic such as PCP.</p> <p data-bbox="516 793 945 1003">a. PCP-impaired subjects may exhibit <u>immediate onset</u>, i.e., the jerking begins virtually as soon as the eyes start to move toward the side.</p> <p data-bbox="516 1039 945 1213">b. Sometimes, PCP-impaired subjects will exhibit <u>resting nystagmus</u>, i.e., the eyes jerk while they are looking straight ahead.</p> <p data-bbox="462 1249 938 1318">5. The <u>Vertical Nystagmus</u> test is very simple to administer.</p> <p data-bbox="516 1354 945 1491">a. Position the stimulus <u>horizontally</u>, approximately 12-15 inches (30-38 cm) in front of the subject's nose.</p> <p data-bbox="516 1528 938 1665">b. Instruct the subject to hold their head still, and follow the stimulus with the eyes only.</p> <p data-bbox="516 1701 945 1837">c. Raise the stimulus until the subject's eyes are elevated as far as possible, hold for four seconds.</p>	<p data-bbox="1003 1039 1416 1108">Write "Resting Nystagmus" on dry-erase board or flip-chart.</p>
 <p data-bbox="191 1386 349 1421">Display 20</p>	<p data-bbox="1003 1249 1416 1528"><u>Point out</u> that vertical nystagmus was not examined in the research that led to the validation of the Standardized Field Sobriety Test battery, horizontal gaze nystagmus, walk and turn and one leg stand.</p> <p data-bbox="1003 1701 1416 1837"><u>Select</u> a student or another instructor to serve as a subject and demonstrate the vertical nystagmus test.</p>	

Aids	Lesson Plan	Instructor Notes
<div data-bbox="232 877 302 1016" data-label="Image"> </div> <div data-bbox="191 1039 354 1071" data-label="Text"> <p>70 Minutes</p> </div> <div data-bbox="188 1113 354 1199" data-label="Image"> </div> <div data-bbox="191 1247 344 1281" data-label="Text"> <p>Display 21</p> </div> <div data-bbox="191 1877 376 1906" data-label="Page-Footer"> <p>HS 178A R2/06</p> </div>	<div data-bbox="462 338 958 756" data-label="List-Group"> <ul style="list-style-type: none"> d. Watch closely for evidence of jerking (up and down). 6. Vertical Nystagmus usually will be present in subjects under the influence of PCP. 7. Vertical Nystagmus may be present in subjects under the influence of CNS depressants or inhalants. </div> <div data-bbox="430 898 878 966" data-label="Section-Header"> <p>C. Drug Categories and Their Observable Effects.</p> </div> <div data-bbox="462 1108 958 1806" data-label="List-Group"> <ul style="list-style-type: none"> 1. CNS Depressants slow down the operations of the brain, and usually depress the heartbeat, respiration, and many other processes controlled by the brain. <ul style="list-style-type: none"> a. The most familiar CNS Depressant is <u>alcohol</u>. b. Other CNS Depressants include: <ul style="list-style-type: none"> o Barbiturates (such as Secobarbital and Pentobarbital) o Non-Barbiturates (GHB - Gama hydroxy Butyrate and soma) </div>	<div data-bbox="1003 619 1422 861" data-label="Text"> <p><u>Point out</u> that vertical nystagmus usually develops after <u>high</u> doses of alcohol, other depressants or inhalants.</p> <p><u>Solicit</u> participants' questions concerning nystagmus.</p> </div>

Aids	Lesson Plan	Instructor Notes
<div data-bbox="186 1115 354 1199" data-label="Image"> </div> <p data-bbox="191 1251 367 1283">Display 22A</p>	<ul style="list-style-type: none"> o Anti-Anxiety Tranquilizers (such as Valium, Librium, Xanax, and Rohypnol) o Anti-Depressants (such as Prozac and Elavil) o Muscle relaxants and many other drugs. c. CNS Depressants usually are taken <u>orally</u>, in the form of pills, capsules, liquids, etc. d. In general, people under the influence of any CNS Depressant look and act like people under the influence of alcohol. e. General indicators of CNS Depressant influence: <ul style="list-style-type: none"> o "Drunken" behavior and appearance o Uncoordinated o Drowsy o Sluggish o Disoriented o Thick, slurred speech f. Eye indicators of CNS Depressant influence: <ul style="list-style-type: none"> o Horizontal gaze nystagmus usually <u>will</u> 	

Aids	Lesson Plan	Instructor Notes
<div data-bbox="191 730 354 814" data-label="Image"> </div> <p data-bbox="191 867 367 898">Display 22B</p>	<p data-bbox="618 306 764 338">be present.</p> <ul style="list-style-type: none"> <li data-bbox="565 380 948 478">o Vertical nystagmus <u>may</u> be present (with high doses). <li data-bbox="565 520 922 688">o Pupil size usually will be <u>normal</u>, except that Methaqualone and Soma will cause pupil dilation. <p data-bbox="464 730 932 863">2. CNS Stimulants accelerate the heart rate, respiration and many other processes of the body.</p> <ul style="list-style-type: none"> <li data-bbox="516 905 948 1037">a. The two most widely abused kinds of CNS Stimulants are <u>cocaine</u> and <u>methamphetamines</u>. <li data-bbox="516 1079 906 1142">b. Cocaine is made from the leaves of the coca plant. <li data-bbox="516 1184 889 1283">c. Methamphetamines are chemically produced (manufactured) drugs. <li data-bbox="516 1325 948 1598">d. Cocaine abusers may take the drug <ul style="list-style-type: none"> <li data-bbox="565 1430 792 1461">o by "snorting" <li data-bbox="565 1461 948 1524">o by smoking (freebase, or "Crack") <li data-bbox="565 1524 776 1556">o by injection <li data-bbox="565 1556 695 1587">o orally <li data-bbox="516 1640 915 1839">e. Abusers of amphetamines may take their drugs: <ul style="list-style-type: none"> <li data-bbox="565 1745 776 1776">o by injection <li data-bbox="565 1776 695 1808">o orally <li data-bbox="565 1808 792 1839">o by "snorting" 	<p data-bbox="1003 485 1403 583"><u>Solicit</u> participants' questions concerning indicators of CNS Depressant influence.</p> <p data-bbox="1003 1178 1386 1209">Illegal and illicit production.</p>

Aids	Lesson Plan	Instructor Notes
<div data-bbox="186 445 354 531" data-label="Image"> </div> <p data-bbox="186 583 368 617">Display 24A</p>	<p data-bbox="516 306 854 340">awareness and emotions.</p> <ul style="list-style-type: none"> <li data-bbox="516 447 943 617">a. One common type of hallucination caused by these drugs is called <u>synesthesia</u>, which means a transposing of the senses. <ul style="list-style-type: none"> <li data-bbox="565 657 932 758">o Sounds, for example, may be transposed into sights. <li data-bbox="565 798 951 898">o Sights, for example, may be transposed into odors or sounds. <li data-bbox="516 972 932 1037">b. Some hallucinogenic drugs come from natural sources. <ul style="list-style-type: none"> <li data-bbox="565 1077 924 1178">o <u>Peyote</u> is an hallucinogen found in a particular specie of cactus. <li data-bbox="565 1218 935 1352">o <u>Psilocybin</u> is an hallucinogen found in a number of species of mushroom. <li data-bbox="516 1392 946 1457">c. Other hallucinogens are synthetically manufactured: <ul style="list-style-type: none"> <li data-bbox="565 1497 878 1562">o <u>LSD</u> (Lysergic Acid Diethylamide) <li data-bbox="565 1602 911 1667">o <u>MDA</u> (3,4-Methylene-dioxyamphetamine) <li data-bbox="565 1707 846 1740">o MDMA (Ecstasy) <li data-bbox="565 1780 797 1814">o Many others. 	<p data-bbox="1000 306 1390 407">Definition from <u>The Random House College Dictionary</u> (Revised Edition, 1980).</p> <p data-bbox="1000 657 1422 758"><u>Example:</u> the user may "see" a flash of color whenever the telephone rings.</p> <p data-bbox="1000 798 1422 932"><u>Example:</u> the user may "smell" a particular fragrance when he or she looks at something painted red.</p>

Aids	Lesson Plan	Instructor Notes
 <p data-bbox="191 657 367 688">Display 24B</p>	<ul style="list-style-type: none"> d. Hallucinogen abusers usually take their drugs orally; however, some hallucinogens can be smoked, or injected or "snorted". e. General indicators of Hallucinogen influence: <ul style="list-style-type: none"> o Hallucinations o Dazed appearance o Body tremors o Uncoordinated o Perspiring o Disorientation o Paranoia o Difficulty in speech o Nausea o Piloerection (goose bumps) f. Eye indicators of Hallucinogen influence: <ul style="list-style-type: none"> o Neither horizontal nor vertical nystagmus will be present. o The pupils usually will be noticeably <u>dilated</u>. 	<p></p> <p><u>Point out</u> that the indicators of hallucinogen influence are very similar to the indicators of CNS Stimulant Influence.</p> <p><u>Solicit</u> participants' questions concerning indicators of hallucinogen influence.</p>
 <p data-bbox="191 1570 367 1602">Display 24C</p>	<ul style="list-style-type: none"> 4. <u>Dissociative Anesthetics</u> is the category of drugs that includes PCP and its various analogs. <ul style="list-style-type: none"> a. PCP is a synthetic drug, that was first developed as an intravenous anesthetic. b. Because PCP produces very undesirable side effects, it is no longer legally manufactured. However, an analog (chemical cousin) 	<p></p> <p><u>Point out</u> that PCP is a very powerful anesthetic, or pain-killer.</p>





Display 25A

Ketamine is still being legally manufactured and available.



- c. However, it is easy to manufacture:
 - o The formula for making PCP and PCP analogs have been widely publicized.
 - o The manufacturing process involves readily available chemicals.
- d. Many Dissociative Anesthetic users smoke the drug, by using it to adulterate tobacco, marijuana, or various other substances.
- e. Dissociative Anesthetics can also be taken orally or by injection, or inhaled.
- f. General indicators of Dissociative Anesthetic influence:
 - o Warm to the touch
 - o Perspiring
 - o Blank stare
 - o Repetitive speech
 - o Incomplete verbal responses
 - o Confused
 - o Muscle rigidity
 - o Possibly violent & combative
- g. Eye indicators of Dissociative Anesthetic

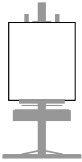


Aids	Lesson Plan	Instructor Notes
<div data-bbox="186 900 354 989" data-label="Image"> </div> <p data-bbox="191 1039 367 1071">Display 25B</p>	<p data-bbox="565 304 699 331">influence:</p> <ul style="list-style-type: none"> <li data-bbox="565 375 902 579">o Horizontal gaze nystagmus generally <u>will</u> be present, often with very early onset and very distinct jerking. <li data-bbox="565 621 878 720">o Vertical nystagmus generally <u>will</u> be present. <li data-bbox="565 762 915 827">o Pupil size usually will be <u>normal</u>. <p data-bbox="462 900 911 1031">5. <u>Narcotic Analgesics</u> include a large number of drugs that share three important characteristics.</p> <ul style="list-style-type: none"> <li data-bbox="514 1108 867 1140">a. They will relieve pain. <li data-bbox="514 1215 946 1383">b. They will produce withdrawal signs and symptoms, when the drug is stopped after chronic administration. <li data-bbox="514 1425 911 1562">c. They will suppress the withdrawal signs and symptoms of chronic morphine administration. <li data-bbox="514 1604 911 1839">d. Some narcotic analgesics are natural derivatives of <u>opium</u>: <ul style="list-style-type: none"> <li data-bbox="565 1740 748 1772">o Morphine <li data-bbox="565 1776 711 1808">o Heroin <li data-bbox="565 1812 727 1843">o Codeine 	<p data-bbox="1000 726 1403 858"><u>Solicit</u> participants' questions concerning indicators of Dissociative Anesthetic influence.</p> <p data-bbox="1000 1110 1347 1176"><u>Point out</u> that "analgesic" means "pain killer".</p> <p data-bbox="1000 1218 1359 1350"><u>Point out</u> that this characteristic implies that narcotic analgesics are physically addicting.</p>

Aids	Lesson Plan	Instructor Notes
 <p>Display 26C</p>	<ul style="list-style-type: none"> o Depressed reflexes o Dry mouth o Facial itching o Low, raspy speech o Fresh puncture marks may be evident <p>1. Eye indicators of Narcotic Analgesic influence:</p> <ul style="list-style-type: none"> o Neither horizontal nor vertical nystagmus will be present. o Pupils generally will be <u>constricted</u>. <p>6. <u>Inhalants</u> are breathable chemicals that produce mind-altering results.</p> <p>a. A wide variety of familiar household items are sometimes abused as inhalants.</p> <p>b. Certain anesthetics also may be abused as inhalants.</p> <p>c. General indicators of Inhalant influence:</p> <ul style="list-style-type: none"> o Disorientation o Slurred speech o Residue of substance on face, hands, clothing 	<p>is in a semi-conscious type of sleep.</p> <p><u>Solicit</u> participants' questions concerning indicators of Narcotic Analgesic influence.</p> <p><u>Examples:</u></p> <ul style="list-style-type: none"> o plastic cement (model airplane glue, Toluene) o gasoline o paint o vegetable frying pan lubricants o hair sprays o insecticides o many others <p><u>Examples:</u></p> <ul style="list-style-type: none"> o nitrous oxide o ether o chloroform
 <p>Display 27A</p>		

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
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Aids	Lesson Plan	Instructor Notes
	<ul style="list-style-type: none"> o Confusion o Possible nausea d. Eye indicators of Inhalant influence: <ul style="list-style-type: none"> o Horizontal gaze nystagmus generally <u>will</u> be present. o Vertical nystagmus <u>may</u> be present (especially with high doses). o Pupil size generally will be normal. 	
<p>Display 27B</p>	<p>7. <u>Cannabis</u> is the category that includes the various products of the Cannabis Sativa plant.</p> <ul style="list-style-type: none"> a. Marijuana b. Hashish c. Hash Oil 	<p><u>Solicit</u> participants' questions concerning inhalants.</p>
 <p>Display 28A</p>	<ul style="list-style-type: none"> d. Cannabis products generally are <u>smoked</u>, although they also can be ingested orally. e. General indicators of Cannabis influence: <ul style="list-style-type: none"> o Marked reddening of the Conjunctiva (white part of the eyeball) o Body tremors o Odor of marijuana o Disoriented o Relaxed inhibitions o Difficulty in dividing 	
<p>HS 178A R2/06</p>	<p>23</p>	

Aids	Lesson Plan	Instructor Notes
<div data-bbox="224 558 305 718"></div> <div data-bbox="233 842 300 909"></div> <div data-bbox="191 934 357 966">20 Minutes</div> <div data-bbox="191 1108 367 1140">Display 28B</div> <div data-bbox="191 1194 357 1278"></div> <div data-bbox="191 1877 378 1908">HS 178A R2/06</div>	<p data-bbox="618 306 748 338">attention.</p> <ul style="list-style-type: none"> <li data-bbox="516 478 930 825">f. Eye indicators of Cannabis influence: <ul style="list-style-type: none"> <li data-bbox="565 583 930 688">o Neither horizontal nor vertical nystagmus will be present. <li data-bbox="565 726 930 825">o Pupil size generally will be dilated, but may be normal. <li data-bbox="428 867 824 898">D. Combinations of Drugs <ul style="list-style-type: none"> <li data-bbox="464 936 922 1066">1. Many drug users routinely ingest drugs from two or more drug categories at the same time. <ul style="list-style-type: none"> <li data-bbox="516 1108 930 1178">a. The term for this condition is "polydrug use". <li data-bbox="516 1251 906 1388">b. In the Los Angeles Field Study (1985), 72% of the suspects had two or more drugs in them. <li data-bbox="516 1425 930 1562">c. In that study, alcohol was often found in combination with one or more other drugs. <li data-bbox="516 1600 946 1772">d. But even if we discount alcohol, nearly half (45%) of the Field Study suspects had two or more other drugs in them. <li data-bbox="516 1810 841 1841">e. During Certification 	<p data-bbox="1003 758 1401 827">Solicit participants' questions concerning Cannabis.</p> <p data-bbox="1003 1108 1417 1213"><u>Point out</u> that the prefix "poly" derives from the Greek word for "many".</p> <p data-bbox="1003 1600 1430 1772">Point out that 81 of the 173 suspects (47%) in the Los Angeles Field Study had alcohol in combination with one or more other drugs.</p>

Aids	Lesson Plan	Instructor Notes
<div data-bbox="191 1591 350 1675" data-label="Image"> </div> <div data-bbox="191 1738 350 1808" data-label="Text"> <p>Display 29 A, B, C, D</p> </div> <div data-bbox="191 1877 378 1906" data-label="Page-Footer"> <p>HS 178A R2/06</p> </div>	<p>Training in New York City in early 1989, two-thirds (67%) of the suspects evaluated had two or more drugs other than alcohol in their urine.</p> <ol style="list-style-type: none"> 2. Certain combinations of drugs appear to be fairly common. <ol style="list-style-type: none"> a. <u>Alcohol and some other drug</u> is the most frequent combination. b. <u>PCP and Cannabis</u> is another common combination. c. <u>Cocaine and Heroin</u> is another common combination. 3. Because polydrug use is so common, you should not be surprised to encounter suspects who are under the influence of more than one category of drugs. <ol style="list-style-type: none"> a. At some times and places, polydrug users may be more common than single drug users. b. Be especially alert to the possibility that suspects who have been drinking may also have ingested some other drug or drugs. 4. The effects of polydrug use may vary widely, depending on exactly what combination of 	<p><u>Write</u> these common combinations on the dry-erase board or flip-chart.</p> <p><u>Remind</u> participants that many PCP users prefer to ingest that drug by <u>smoking</u>, and a favorite method is to sprinkle powdered PCP on marijuana.</p>

Aids	Lesson Plan	Instructor Notes
	<p>drugs is involved, how ingested and when they were ingested.</p> <p>5. Any particular combination of drugs may produce four general kinds of effects.</p> <p>a. <u>Null</u> - Neither drug has an effect on the indicator.</p> <p>b. <u>Overlapping</u> - Each drug may affect the suspect in some different way. In combination, <u>both</u> effects may appear.</p> <p>c. <u>Additive</u> - The two drugs may independently produce some similar effects. In combination, these effects may be enhanced.</p> <p>d. <u>Antagonistic</u> - The two drugs may produce some effects that are exactly opposite. In combination, these effects may mask each</p>	<p>Null Effect: The combination of no action plus no action equals no action.</p> <p><u>EXAMPLE OF NULL EFFECTS:</u> CNS Stimulant and Narcotic Analgesic. Neither drug causes nystagmus, therefore you will <u>not</u> see nystagmus with this combination.</p> <p>Overlapping Effect: Action plus no action equals action.</p> <p><u>EXAMPLE OF OVERLAPPING EFFECTS:</u> PCP and Narcotic Analgesic. PCP will enhance nystagmus, while a Narcotic Analgesic does not cause nystagmus. Therefore, you will see nystagmus.</p> <p>Additive Effect: Action plus the same action reinforces the action.</p> <p><u>EXAMPLE OF ADDITIVE EFFECTS:</u> Stimulants and Hallucinogens both cause pupil dilation. Pupils would be dilated.</p> <p>Antagonistic Effect: Action versus opposite action can't predict the outcome.</p>

Aids	Lesson Plan	Instructor Notes
	<p>other.</p>	<p><u>EXAMPLE OF ANTAGONISTIC EFFECTS:</u> A CNS Stimulant usually causes pupil <u>dilation</u>, a narcotic usually causes <u>constriction</u>. It is possible that someone who is simultaneously under the influence of a stimulant <u>and</u> a narcotic may have pupils that are nearly normal in size. It is also possible that the suspect's pupils may be dilated at one time, and then become constricted, as the effects of one drug diminish while the effects of the other increase.</p>
 15 Minutes	<p>E. Demonstrations of Drug Influence (Video)</p>	<p>Show the video of the examinations of suspects under the influence of various drugs.</p>
 25 Minutes	<p> Dealing With Suspected Drug Influence or Medical Impairment.</p> <p><u>NOTE:</u> This segment of the Lesson Plans must be developed locally. Relevant topics may include:</p> <ul style="list-style-type: none"> o Local and state laws governing drug-impaired driving and chemical testing of drug- 	<p>Instructor Note: This may be an opportunity to discuss various medical conditions that mimic impaired driving, i.e., diabetic shock and hypoglycemia.</p>

Aids	Lesson Plan	Instructor Notes
<div data-bbox="198 1081 362 1167" data-label="Image"> </div> <p data-bbox="191 1178 347 1209">Display 30</p>	<p data-bbox="618 306 870 338">impaired suspects.</p> <ul style="list-style-type: none"> <li data-bbox="565 380 943 548">o Departmental procedures for interviewing, searching, etc. drug-impaired suspects. <li data-bbox="565 590 932 863">o Procedures for contacting drug recognition technicians and assisting in or witnessing the drug evaluation and classification examination. <li data-bbox="565 905 927 1041">o Procedures for requesting, obtaining and handling chemical test specimens. <p data-bbox="428 1073 618 1104">G. Closing</p> <ol style="list-style-type: none"> <li data-bbox="464 1146 948 1388">1. Although this course is not designed to qualify you as a DRE, it is intended to make you more knowledgeable when encountering suspects impaired by substances other than alcohol. 	<p data-bbox="1003 1073 1354 1178">Consult with a DRE, if possible, and document in detail all observations.</p>